

Claims

1. Payment-based audiovisual reproduction system, developed around a microprocessor device linked to a payment device, on the one hand comprising fundamentally mass storage means, for among others storage, in compressed digital form, of the audio and visual information to be used, and on the other hand linked, via interfaces, to digital display means and digital audio reproduction means allowing formation of a multimedia environment, characterized in that the ensemble is managed by a multitask operating system including a library of tools and services integrated in the storage means, the kernel of the operating system linking to each of the peripheral means a task and assigning the highest priority to the display task and a second level priority to the audio task, at least one temporary storage buffer (66, 67 or 56, 57) of the data to be decompressed being linked to respective display (6) and audio (5) reproduction means to allow processing of data transferred to one of the means during processing of a transfer to another means by the operating system, and a scheduling module of the operating system linking a status buffer positioned at a value representative of the activity of a task while the temporary storage buffers contain the data.

2. Audiovisual reproduction system according to claim 1, wherein it is moreover linked via interface (158) to telecommunications modem (4, 41), said system then being connected to a audiovisual data distribution system by the telecommunications modem and telecommunications lines,

a this telecommunications function likewise being managed by the multitask operating system included in the library of tools and services integrated in the storage means with a third level priority and linking to this telecommunications task temporary buffer (26) for storage of data to be transferred and buffer (841) for indicating the status of this task.

a 3. Audiovisual reproduction system according to claim 1 ~~or 2~~, wherein the operating system includes priority resolution module (11) which, depending on the priorities assigned to the declared tasks, will acknowledge reception of the request for a task or will respond with a busy signal, and scheduling module (12) which depending on the declared active tasks and the availability of sufficient material resources fills a storage request queue.

a a 4. Audiovisual reproduction system according to ^{claim 1} ~~one of the preceding claims~~, wherein temporary buffer (36) for storage of data from a man/machine interface and buffer (831) which indicates the status of this task of the man/machine interface are linked to interface task (73) such as selection of zones on a touch screen, each zone corresponding to a choice among the data displayed on the display means.

a a 5. Audiovisual reproduction system according to ^{claim 1} ~~one of the preceding claims~~, wherein the lowest priority task is that of management by the manager, based on remote control (31) with use validated by key switch (32), for managing the database for acquiring new selections or implementing all types of command settings by remote control.

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6. Audiovisual reproduction system according to ^{claim 1} ~~one of the preceding claims~~, wherein it includes a system operating status file kept on the hard disk, in which the system records data on the insertion of money, addition of a selection in the queue, the end of a selection to pass to the following selection to allow the system to return to exactly the same location in case of an interruption due to a fault.

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7. Audiovisual reproduction system according to ^{claim 1} ~~one of the preceding claims~~, wherein the display means include basically a video monitor for reproduction of images of the audiovisual information and a touch screen for monitoring and assistance on which at least four control panels can be selected, the first title selection panel proceeding to help customers find and select a desired title, a second management ^C control panel for control of volume, basses, trebles or panoramic control on the video monitor, a third panel for scanning the title database, for private use, to allow the system manager or owner to examine the database containing the available titles via the audiovisual data distribution network to control and retrieve said titles, a fourth statistics panel, for private use, for statistical estimations and calculations relative to the titles.

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8. Audiovisual reproduction system according to ^{claim 1} ~~one of the preceding claims~~, wherein the infrared remote control device allows execution of at least one of the functions listed below:

- audio volume control of the played selections,
- audio volume control of an auxiliary played source,

- microphone start-stop command,
- microphone audio volume control,
- balance control, left channel, right channel,
- control of base frequency level,
- control of treble frequency level,
- commands to cancel or skip a musical selection,
- panoramic effects command, zoom forward, zoom back,
- triggering of reset of the software program.

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9. Audiovisual reproduction system according to ^{claim 1} ~~one of the~~ preceding claims, wherein a management mode module allows recording of the system operating parameters in a file stored in the hard disk in a machine format which cannot be read by the user, the data backed up on the disk being reread each time the system is activated.

10. Audiovisual reproduction system according to claim 9, wherein the system operating parameters file makes it possible to fix the price of a title or number of titles for a predetermined value, the inactivity delay before starting the visual promotional mode, the inactivity delay before starting an auxiliary source such as a radio for example, the inactivity delay before starting the selection sampling mode, the location determined in seconds from the beginning where the system will be able to start sampling a selection, the duration in seconds of the sample.